



ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

SUBSONIC ENGINES

ENGINE IDENTIFICATION: AE3007C2
 UNIQUE ID NUMBER: 13AL027
 COMBUSTOR: Type 2
 ENGINE TYPE: MTF

BYPASS RATIO: 5.0
 PRESSURE RATIO (π_{00}): 17.4
 RATED THRUST (F_{00}) (kN): 32.7

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NO _x	SMOKE NUMBER
D _p /F ₀₀ (g/kN) or SN	9.2	65.6	47.0	0.0
AS % OF ORIGINAL LIMIT	46.7	55.6	70.3	0.0
AS % OF CAEP/2 LIMIT (NO _x)			78.4	
AS % OF CAEP/4 LIMIT (NO _x)			80.1	
AS % OF CAEP/6 LIMIT (NO _x)			80.9	
AS % OF CAEP/8 LIMIT (NO _x)			86.2	

DATA STATUS

- PRE-REGULATION
 x CERTIFICATION
 - REVISED (SEE REMARKS)

TEST ENGINE STATUS

- NEWLY MANUFACTURED ENGINES
 x DEDICATED ENGINES TO PRODUCTION STANDARD
 - OTHER (SEE REMARKS)

EMISSIONS STATUS

x DATA CORRECTED TO REFERENCE
 (ANNEX 16 VOLUME II)

CURRENT ENGINE STATUS

(IN PRODUCTION, IN SERVICE UNLESS OTHERWISE NOTED)
 x OUT OF PRODUCTION (DATE: -)
 - OUT OF SERVICE (DATE: -)

MEASURED DATA

MODE	POWER SETTING (%F ₀₀)	TIME (minutes)	FUEL FLOW (kg/s)	EMISSIONS INDICES (g/kg)			SMOKE NUMBER
				HC	CO	NO _x	
TAKE-OFF	100	0.7	0.326	0.00	0.00	21.25	0.0
CLIMB OUT	85	2.2	0.271	0.01	0.00	18.11	0.0
APPROACH	30	4.0	0.099	0.22	1.97	6.56	0.0
IDLE	7	26.0	0.047	2.57	23.09	3.14	0.0
LTO TOTAL FUEL (kg) or EMISSIONS (g)			147	195	1747	1326	-
NUMBER OF ENGINES				1	1	1	1
NUMBER OF TESTS				3	3	3	3
AVERAGE D _p /F ₀₀ (g/kN) or AVERAGE SN (MAX)				5.9	53.4	40.5	0.0
SIGMA (D _p /F ₀₀ in g/kN, or SN)							
RANGE (D _p /F ₀₀ in g/kN, or SN)							

ACCESSORY LOADS

POWER EXTRACTION 0 (kW) AT - POWER SETTINGS
 STAGE BLEED 0 (% CORE FLOW) AT - POWER SETTINGS

ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	101.3
TEMPERATURE (K)	294
ABS HUMIDITY (kg/kg)	0.009-0.012

FUEL

SPEC	Jet A
H/C	1.9
AROM (%)	16-20

MANUFACTURER: Rolls-Royce Corporation
 TEST ORGANIZATION: Rolls-Royce Corporation
 TEST LOCATION: Indianapolis, Indiana
 TEST DATES: 28/08/2002-29/08/2002

NO_x REGULATION PARAGRAPH

	2.3.2 c) (CAEP/4)
	2.3.2 d) (CAEP/6)
x	2.3.2 e) (CAEP/8)

REMARKS

- For effectivity see Rolls-Royce Notice to Operators No. AE3007C-073
- Data in this form for AE3007C2 engine fitted with PAB fuel nozzles
- Results based on Rolls-Royce report EDR 19972
- Certification in accordance with Part III, Chapter 2, of Amendment 7 of ICAO Annex 16 Vol. II.
- NO_x levels in accordance with Part III, Chapter 2, 2.3.2 e) (CAEP/8)

Compliance with Fuel Venting requirements: x ('x' if complies, 'PR' if pre-regulation, '-' if information is not available)